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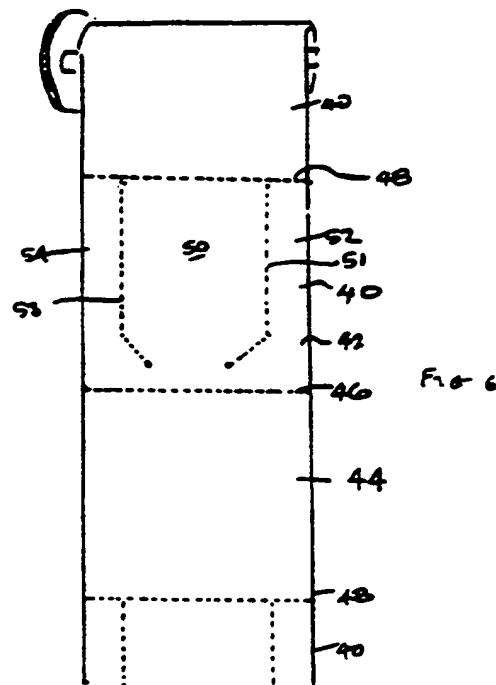
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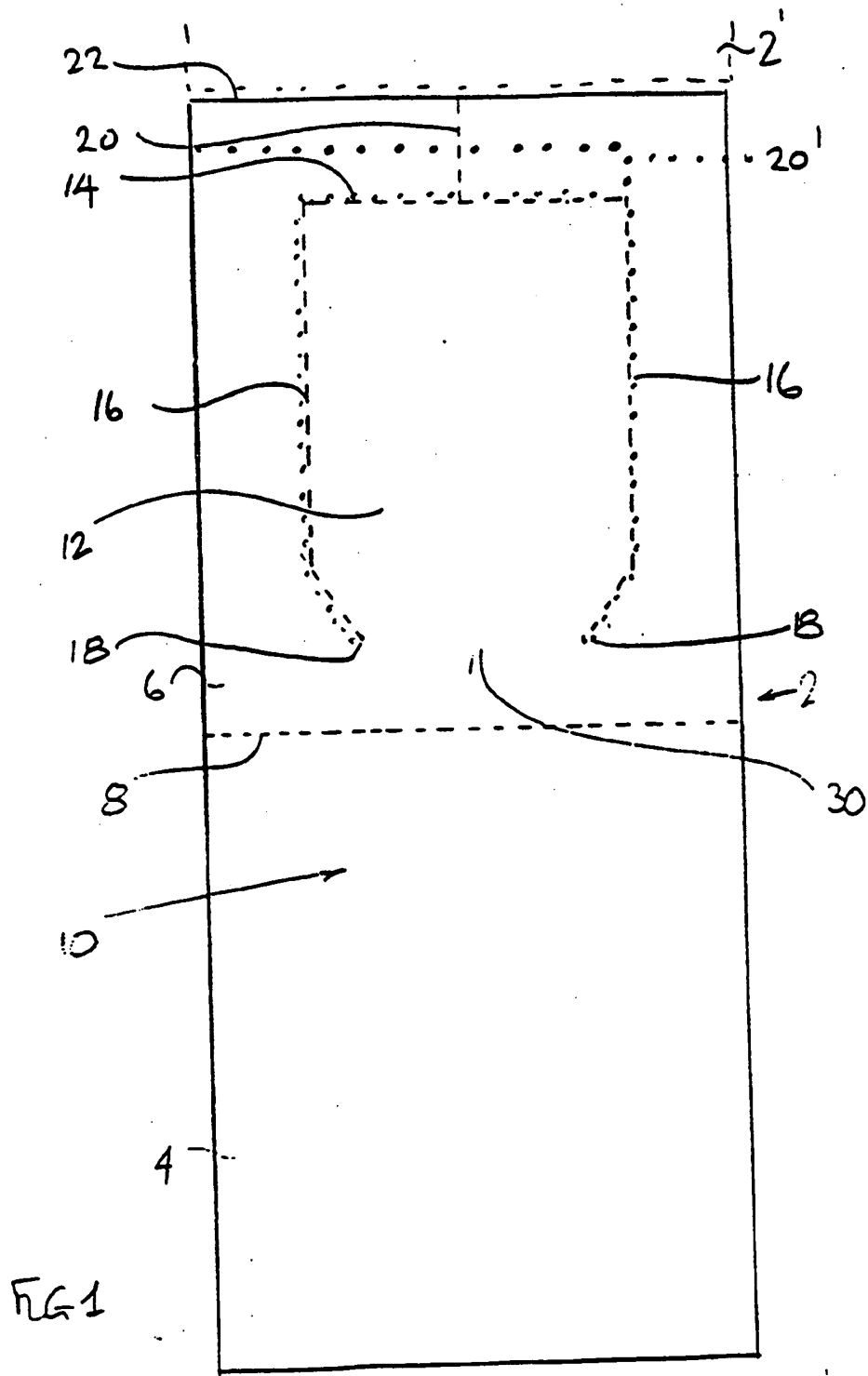
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INT CL⁶ A61B
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(54) **DISPOSABLE BIBS**

(57) A disposable bib 40 is formed from two sheets 42, 44 of absorbent material such as tissue paper, separated by perforations 46. The bibs 40 are dispensed from a roll, each bib being separated from the roll along a row of perforations 48. Alternate sheets 42 have a flap 50 defined by perforations 51, 53. In use the flap 50 is released from the sheet 42 and folded to overlie or underlie the sheet 44 to provide a neck-receiving opening and a double thickness protective layer.



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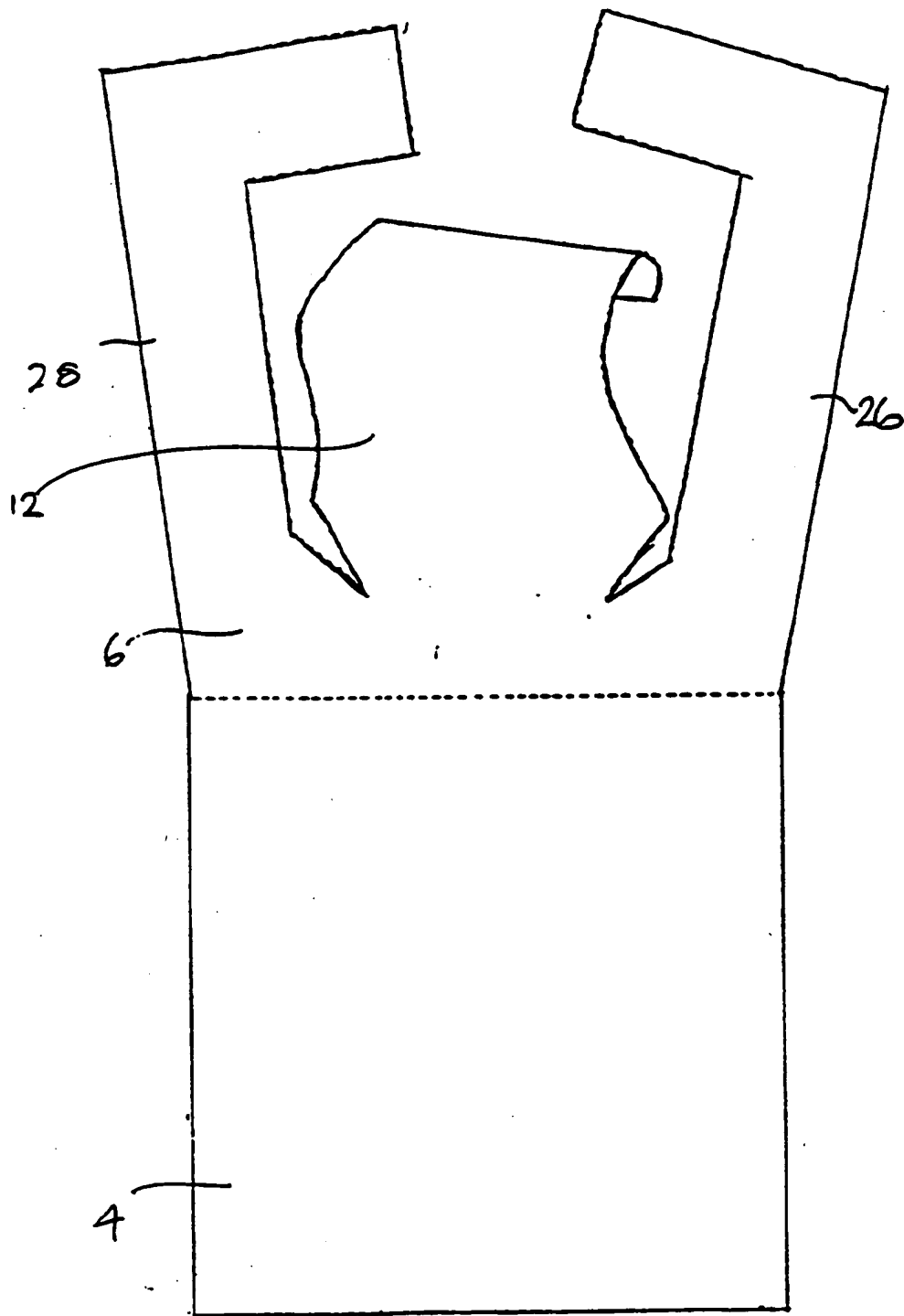


FIG 2

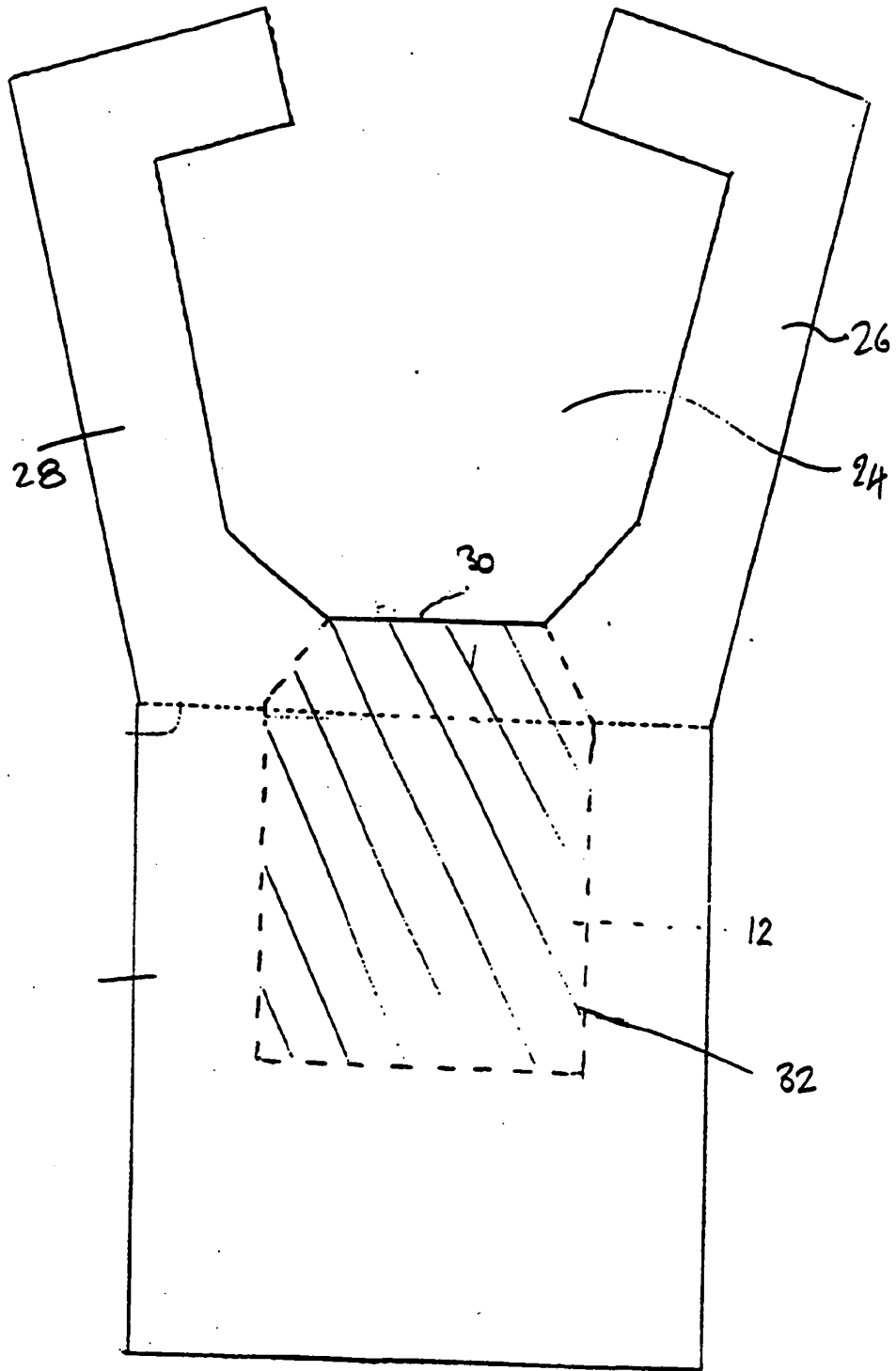


FIG 3

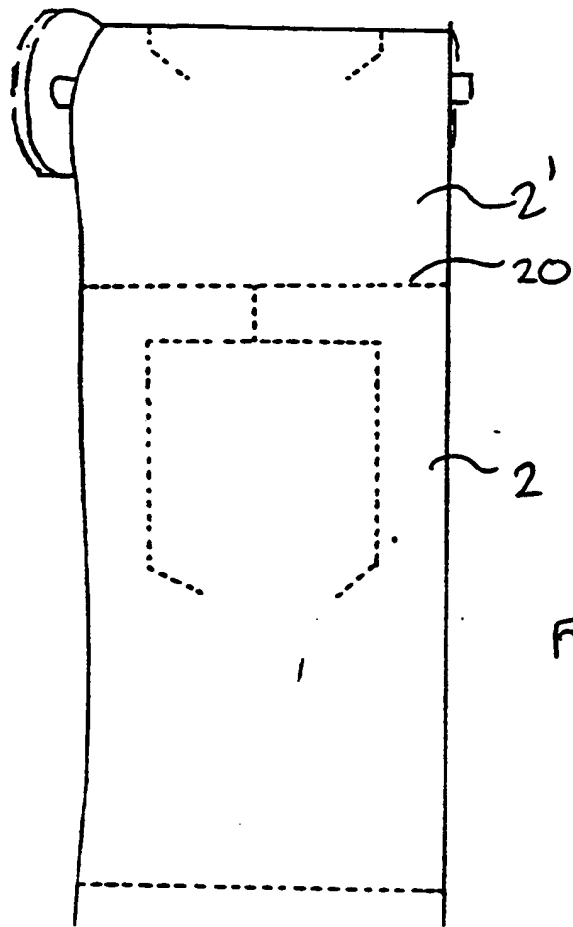
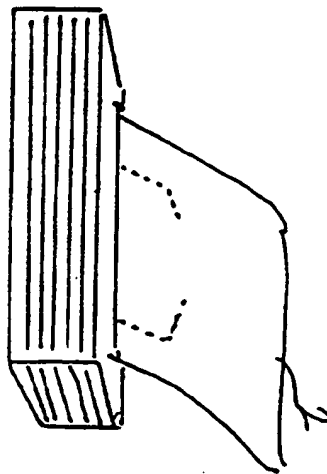
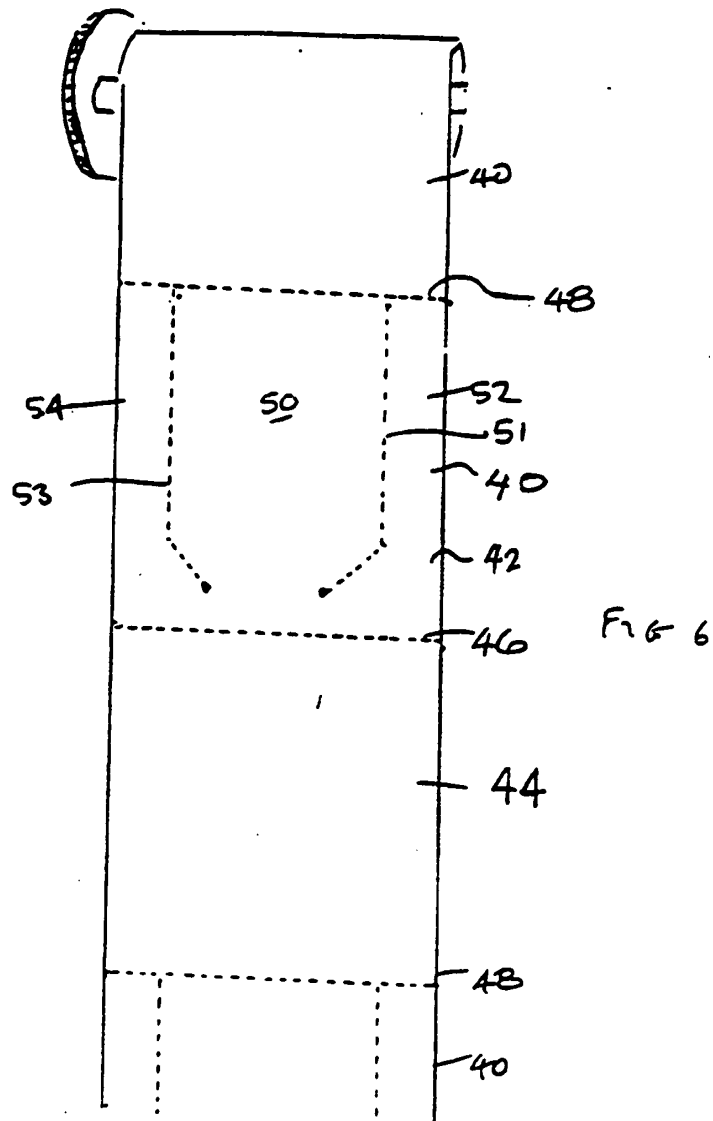


FIG 5





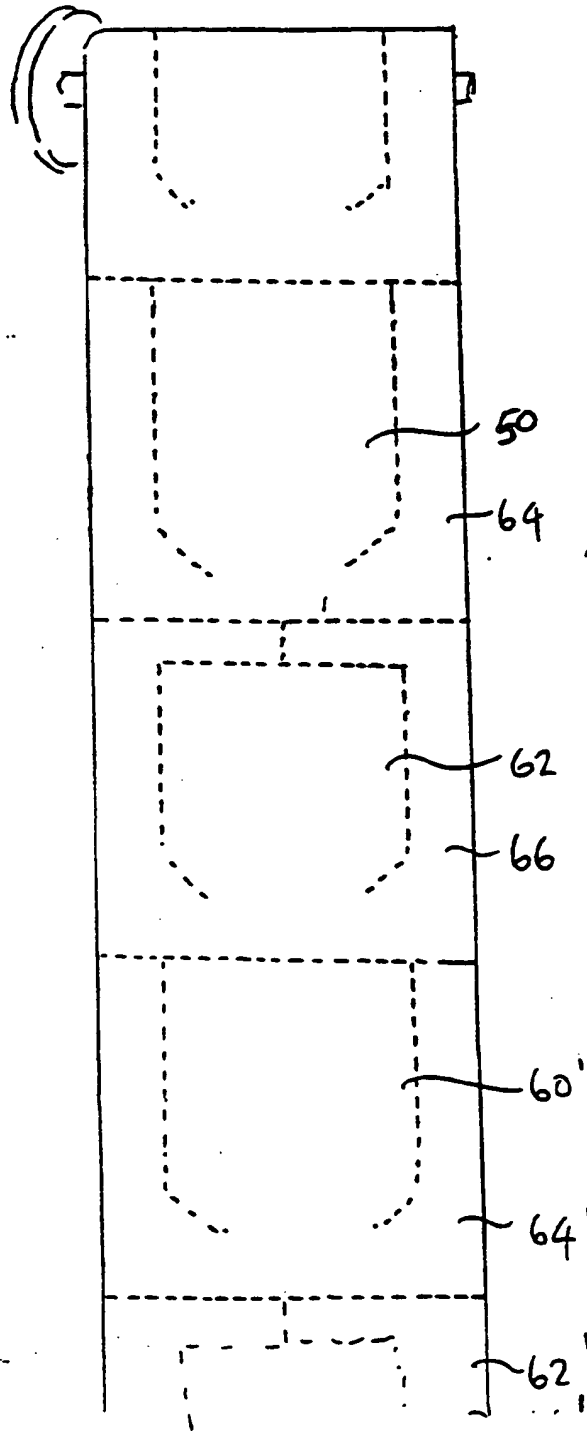


FIG 7

Disposable Bibs

5 The present invention relates to disposable bibs
which may, for example, be used by children or which
might also be used by adults for example in restaurants,
at parties or barbecues to protect clothing from
accidental spillage of food or drink. It is
10 particularly useful in providing a bib which may be used
in emergency situations, or in situations where a
conventional bib may not be readily available, such as,
for example, in a car or at picnics. It may also be
usable in hospitals, for example, where disposable
15 products are extremely useful.

Disposable bibs are known, for example from
WO 86/05076, GB 2124888 and US 5100710. These bibs are
made from sheet material, in which a neck-receiving hole
is produced by tearing away and discarding a portion of
20 the bib. The bib is then placed around the user's neck
and secured there.

In order to give sufficient protection to users,
the bibs are typically formed from a multi-ply sheet,
one of the plies of which is liquid impervious so as to
25 prevent liquid from seeping through the bib onto the
user's clothing. Such materials are more expensive than
non-impervious materials, and the present invention
seeks to provide a bib which may more readily allow the
use of such materials.

30 From a first aspect therefore the invention
provides a disposable bib of sheet material comprising a
protective portion for placing over a user's clothing
and flap means for defining a neck receiving opening
said flap means being connected to said protective
35 portion through hinge means about which said flap means
is folded in use to overlap the protective portion to
provide a double thickness protective layer.

From a second broad aspect the invention provides a disposable bib of sheet material comprising a protective portion for covering a wearer's neck and upper chest and a flap folded to overlie said portion to provide a double layer of protection.

Thus in accordance with the present invention, rather than discarding a neck-defining portion as was done previously, it is now folded to overlap the protective portion to give a double thickness protective layer. This may obviate the need for liquid impervious layers to be incorporated in the bib material, thereby reducing costs. Furthermore, it has been found that some people are allergic to backing materials, such as latex, which are used on existing disposable bibs. By choosing material having suitable absorbency, such layers may be dispensed with, thereby avoiding the possibility of an allergic reaction.

Preferably therefore, the bib is of an absorbent sheet material, such as paper or other cellulosic material. The material may, typically, be multi-ply similar to that used in kitchen towels or in paper handkerchiefs, and can be chosen or manufactured to give a desired absorbency.

The flap means should, clearly, be of such a size as to allow a user's neck to be received, but also preferably to overlap a substantial portion of the protective portion to give maximum protection. Preferably, therefore, the flap means overlaps at least 50% of the length of the protective portion, when folded into position.

The flap means may be generally rectangular in shape, so that a generally rectangular double protection layer is produced.

The bib is retained around a user's neck by the material surrounding the flap means. Preferably the material is formed into two strips which may be tied or adhered together or otherwise secured around the user's

neck.

The strips may be formed so as merely to extend longitudinally to an edge of the bib, or may be configured so as at least partly to extend around the flap means laterally.

Also, to avoid wastage of material during manufacture, the bib itself is preferably rectangular in shape.

In one embodiment, the bib may comprise two sheets, for example of the same or similar size, joined along a line of weakness, one sheet defining substantially the protective portion and the other providing the flap means. If it is desired to use the bib simply as a tissue, wipe or cloth, the sheets may be separated along the line of weakness, and used independently.

The flap means may be pre-cut in the material of the bib, so that to use the bib, the user need only fold the flap means into position. Preferably, however, the flap means is at least partially defined by lines of weakness, such as perforations, so that when it is desired to use the bib, the lines of weakness must first be broken by the user so as to liberate the flap means and the flap means then folded about its hinge line into position. Most preferably, the lines of weakness define the lateral portions at least of the flap means. Such arrangements keeps the flap means in position until use and considerably facilitates manufacture and packaging of the bibs. Furthermore, when, as described above each bib may comprise two sheets joined at a line of weakness, the sheets being separable to be usable as wipes, tissues or the like, by defining the flap means with lines of weakness rather than by cut lines, the sheet with the flap means will remain intact as such.

From a further broad aspect, therefore, the invention provides a disposable bib comprising two sheets of absorbent material detachably joined together about a line of weakness, one said sheet having neck

opening defining flap means defined therein at least partially by lines of weakness which must be broken to release the flap from the said one sheet.

5 Preferably the lines of weakness define only a portion of the periphery of the neck receiving opening, so as to leave a web of material to connect the flap means to the protective portion, the web defining the hinge means.

10 As the sheet material is generally thin and flexible, no scoring or pre-folding of the hinge means will generally be required.

Typically the flap may be defined between longitudinally extending lines of weakness, the hinge means extending transversely between the ends thereof.

15 The ends of the lines of weakness may be formed so as to reduce the risk of tearing of the bib in this region, for example being formed as rounded holes. Alternatively, a strengthening material such as size, starch, acrylic or rubber adhesive may be applied
20 locally in this region to resist tearing.

It is possible that the whole of the flap means may be defined by lines of weakness. For example in the arrangement defined above in which the bib is formed of two separable sheets, the flap may extend down to the
25 line of weakness joining the sheets, so that the line of weakness forms the hinge line about which the flap means is folded. In such cases, however, the configuration of the respective lines of weakness should preferably be such as to resist detachment of the flap means when it
30 is pulled in the direction perpendicular to the hinge means. This may be achieved, for example, by having the respective longitudinal lines of weakness meeting the hinge line in a discontinuous manner, for example substantially at right angles to each other.
35 Alternatively, these regions may be strengthened by adhesive or the like, as mentioned in the previous paragraph.

The invention also extends to a method of fitting a bib in accordance with the invention to a wearer comprising folding the flap means to overlap the protective portion and positioning the bib around the neck of the wearer.

Bibs in accordance with the invention may be supplied to users in a number of ways. For example, a plurality of bibs may be supplied joined together, for example as a roll, pad or stack, with successive bibs separated by respective lines of weakness. In another arrangement, individual bibs could be stacked in a package, in a manner similar to paper towels or tissues, possibly being interleaved to facilitate their removal. For example, a pocket pack containing a relatively small number of bibs could be provided for portable use, for example for carrying in pockets or handbags.

The invention therefore also provides a roll stack, pad or the like of bibs in accordance with the invention joined together along respective lines of weakness, and to a package containing a stack of bibs in accordance with the invention.

As mentioned above, each bib may itself be formed from two sheets joined at a line of weakness, to allow individual sheets to be removed for other purposes, for example wiping up spillages etc. From a further aspect, therefore, the invention provides a plurality of disposable bibs releasably joined together, each bib comprising two sheets separated by a line of weakness, one of said sheets of each bib having means for defining a neck receiving opening and the other of said sheets of each bib providing a protective portion.

Whereas just one sheet of each pair may be formed with flap means to define a neck-receiving opening, it would of course be possible to form such means on both sheets of each pair. Indeed, the configuration of the means in both sheets may be different, for example to accommodate different users, for example adults or

children. This is itself a new arrangement, and from a further aspect therefore, the invention provides a plurality of disposable bibs releasably joined together, each bib comprising two sheets separated by a line of weakness and having means defining a neck receiving opening in each sheet, the said means on adjacent sheets being configured differently.

Such arrangements as described above applicable not only where the neck receiving opening is defined as a folding flap, but also where it is defined by a completely removable portion of the sheet, as described in the prior art documents discussed above.

A preferred embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 shows a bib in accordance with the invention before use;

Fig. 2 shows the bib of Fig. 1 in an intermediate position;

Fig. 3 shows the bib of Fig. 1 ready for use;

Fig. 4 shows a first method of dispensing bibs in accordance with the invention;

Fig. 5 shows a second method of dispensing bibs;

Fig. 6 shows a further embodiment of the invention; and

Fig. 7 shows a yet further embodiment of the invention.

With reference to the Figs., a disposable bib 2 is made from a sheet of absorbent material. In particular, the sheet material is a multi-ply paper sheet, having for example two or three plies, of a type used in paper towels or handkerchiefs.

The bib has two sheets 4, 6 of generally equal size joined along a line of perforations 8. The lower (in the sense of Fig. 1) sheet 4 substantially defines a protective portion 10 which in use lies over the chest or upper body of a wearer.

The upper sheet 6 is provided with generally rectangular flap means 12 defined by a transversely extending upper line of perforations 14 and two longitudinally extending lines of perforations 16. The longitudinally extending lines of perforations 16 each terminate at an end point 18 short of the line of perforations 8. The protective portion 10 extends below the end points 18. A yet further line of perforations 20 extends centrally longitudinally upwardly from the upper line of perforations 14 to the top edge 22 of the bib 2.

The web of material 30 extending between the perforation end points 18 defines a hinge around which the flap 12 may be folded, as shown in Fig. 3, into a position in which it overlaps the protective portion 10 of the bib 2 to give a double thickness area 32, shown shaded in Fig. 3.

Fig. 3 shows the bib from the front, and it is preferred to place the flap 12 under the sheet 4 to prevent it being damaged by a wearer, such as a child, during use.

To use the bib 2, a user tears the perforations 20, and then continues to tear the perforations 14,16 up to their end points 18 so as to liberate the flap 12 (see Fig. 2) and define a neck receiving opening 24. The material around the flap forms two strips 26,28 which, are used to retain the bib 2 on the user.

In particular, the retaining strips 26,28 are pulled apart as shown in Figs. 2 and 3 to allow the bib to be placed around the neck of a user, whereupon they may be tied or otherwise secured together to keep the bib in place. For example, areas of contact adhesive may be placed on opposed surfaces of the strips to allow them to be held together. Alternatively, the strips may simply be secured to a wearers' garments, for example by being tucked down the back of the neck of a shirt, pullover or the like.

Low-tack adhesive could be provided on all or selected areas of the bib to facilitate its positioning on a user and also to retain the flap in position.

5 It will be seen that the embodiment described provides a large area 32 of double thickness protection, in the central area which is most likely to be subjected to spillages. The absorbency of the material is chosen so as to give good protection under normal
10 circumstances, although if it is anticipated that there may be heavy spillages, two or more bibs may be worn one over the other.

The bib may be used simply as a cloth for mopping up spillages, for example and if desired, two cloths may be provided from a single bib by tearing the bib along
15 the perforations 8. Thus the invention at least in its preferred embodiment provides an inexpensive and versatile disposable bib.

The bib 2 may be dispensed from a roll or pad of joined bibs, the bib 2 being torn away from the next bib
20 (2' Fig. 1) along a perforated upper edge 22 as shown schematically in Fig. 4. Alternatively individual bibs may be stacked one above the other in a box or package, in a manner similar to paper tissues or napkins, as shown in Fig. 5.

25 Fig. 6 shows a further embodiment of the invention. This embodiment is generally similar to that shown in Fig. 4, but in this embodiment, each bib 40 is formed from two sheets 42,44 separated by perforations 46. Respective bibs 40 are separated by perforations 48.
30 The flap 50 is defined by rows of perforations 51,53 which extend to the perforations 48 to define the retaining strips 52,54. Each sheet 42,44 may be used separately as a wipe, for example, but to use a bib, both sheets are detached from the next bib in the roll,
35 the perforations 51,53 broken and the strips 52,54 then secured in position around a user's neck as required.

Fig. 7 shows a yet further embodiment. This is

similar to the embodiment of Fig. 6, except that different sized flaps 60,62,60',62' are formed on adjacent successive sheets 64,66,64',66'. This will allow a bib to be separated from a roll with an
5 appropriately shaped and sized flap for a user.

Various modifications to the described embodiments which fall within the scope of the invention. For example, the flaps may have different shapes, and may even extend down to the line of perforations separating
10 the two sheets of a bib, which can then act as a hinge line about which the flap may be folded. The orientation of the perforations transversely across the bib, will act to resist detachment of the flap if it is pulled downwardly as it is being folded into its
15 operative position.

Further, the retaining strips 24,26 may be configured differently. In one embodiment, for example, the perforations 20 may be replaced by perforations 20' shown in circle dots in Fig. 1 whereby their length may
20 be increased to facilitate tying around the neck. Furthermore, the corners of the flap 12 may be rounded to reduce the risk of the strips 24,26 ripping in these areas, or local strengthening may be applied in these areas. Also, strengthening in the form of size,
25 adhesive or the like may be applied locally in other regions where tearing is not desired, such as at the ends of the strips 24,26.

Claims

1. A disposable bib comprising two sheets of absorbent material detachably joined together about a line of weakness, one said sheet having neck opening defining flap means defined therein at least partially by lines of weakness which must be broken to release the flap from the said one sheet.
2. A disposable bib of sheet material comprising a protective portion for placing over a user's clothing and flap means for defining a neck receiving opening, said flap means being connected to said protective portion through hinge means about which said flap means is folded in use to overlap the protective portion to provide a double thickness protective layer.
3. A bib as claimed in claim 1 or 2 wherein said bib is of an absorbent paper or cellulosic sheet material.
4. A bib as claimed in claim 3 wherein said material is multi-ply.
5. A bib as claimed in any of claims 2 to 4 wherein said flap means is sized to overlap a substantial portion of the protective portion.
6. A bib as claimed in claim 5 wherein said flap means overlaps at least 50% of the length of the protective portion, when folded into position.
7. A bib as claimed in any preceding claim wherein said bib is rectangular in shape.
8. A bib as claimed in any of claims 2 to 7 wherein said bib comprises two sheets joined along a line of weakness, one sheet defining substantially the

protective portion and the other carrying the flap means.

5 9. A bib as claimed in any preceding claim wherein said flap means is at least partially defined in the bib by lines of weakness, such as perforations.

10 10. A bib as claimed in claim 9 wherein the lines of weakness define only a portion of the periphery of the neck receiving opening, so as to leave a web of material to connect the flap means to the protective portion, the web defining the hinge means.

15 11. A bib as claimed in claim 9 or 10 wherein said flap is defined between longitudinally extending lateral lines of weakness, and said hinge means extends transversely between the ends of said lines of weakness.

20 12. A bib as claimed in any of claims 9 to 11 wherein the ends of the flap-defining lines of weakness are formed so as to reduce the risk of tearing of the bib in this region.

25 13. A bib as claimed in any of claim 9 to 12 wherein the region of the bib adjacent the ends of flap-defining lines of weakness is strengthened.

30 14. A bib as claimed in claim 13 wherein a strengthening material is applied locally to the said region.

35 15. A disposable bib of sheet material comprising a protective portion for covering a wearer's neck and upper chest and a flap folded to overlie said portion to provide a double layer of protection.

16. A method of fitting a bib as claimed in any of

claims 1 to 15 on a wearer comprising folding said flap means about said hinge means to overlap said protective portion, and placing the bib around the neck of the wearer.

5

17. A roll, stack, pad or the like of bibs as claimed in any preceding claim joined to each other by respective lines of weakness, whereby they may be removed from the roll, stack, pad or the like.

10

18. A package containing a plurality of bibs as claimed in any of claims 1 to 16 arranged in a stack.

15

19. A package as claimed in claim 18 wherein said bibs are interleaved.

20

20. A plurality of disposable bibs releasably joined together, each bib comprising two sheets separated by a line of weakness, one of said sheets of each bib having means for defining a neck receiving opening and the other of said sheets of each bib providing a protective portion.

25

21. A plurality of bibs as claimed in claim 20 wherein neck opening defining means are provided on alternate sheets.

30

22. A plurality of bibs as claimed in claim 20 wherein neck opening defining means are provided on every sheet.

23. A plurality of bibs as claimed in claim 22 wherein the said means are configured differently on adjacent sheets.

35

24. A disposable bib substantially as hereinbefore described with reference to the accompanying drawings.

25. A roll of disposable bibs substantially as hereinbefore described with reference to the accompanying drawings.

- 5 26. A stack of disposable bibs substantially as hereinbefore described with reference to the accompanying drawings.

Patents Act 1977
Examiner's report to the Comptroller under Section 17
(The Search report)

Application number
GB 9523056.1

Relevant Technical Fields

(i) UK Cl (Ed.O) A3V(V1A3A)

(ii) Int Cl (Ed.6) A41B

Search Examiner
M DAVEY

Date of completion of Search
25 JANUARY 1995

Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE : WPI

Documents considered relevant following a search in respect of Claims :-
1

Categories of documents

- | | |
|--|---|
| <p>X: Document indicating lack of novelty or of inventive step.</p> <p>Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.</p> <p>A: Document indicating technological background and/or state of the art.</p> | <p>P: Document published on or after the declared priority date but before the filing date of the present application.</p> <p>E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.</p> <p>&: Member of the same patent family; corresponding document.</p> |
|--|---|

Category	Identity of document and relevant passages	Relevant to claim(s)
X	EP 0107224 A1 (PROCTOR AND GAMBLE) see in particular perforations 36 and 41 on Figure 2	1
X	WO94/26135 A1 (ANDERSSON) see in particular flap 13 and perforations 9, 10 in Figures 3 and 5	1
X	WO87/06105 A1 (QUILLING) see in particular connector tube 96 on Figure 12 and page 10, lines 19 to 25	1
X	US 5056159 (ZEMKE) see in particular Figure 2 and column 2, lines 56-66 and column 3, lines 10-18	1

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